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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/251,297	02/17/1999	J. FREDERICK LARRICK JR.	KMH-029COMBO	3077

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EXAMINER	
FAN, CHIEH M	

ART UNIT	PAPER NUMBER
2634	

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/251,297	LARRICK ET AL.	
	Examiner	Art Unit	
	Chieh M Fan	2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4 and 6-57* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1,4,6,10-13 and 50-55* is/are allowed.

6)☒ Claim(s) *2,3,15,16,22-24,56 and 57* is/are rejected.

7)☒ Claim(s) *7-9,14,17-21 and 25-49* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 February 1999* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 7-9, 14, 17-20, 29-49 are objected to because of the following informalities:

Regarding claim 7, "said filtered low-level ultra-wideband signals" in line 3 should be changed to --- said filtered low-level ultra-wideband pulse ---.

Regarding claim 8, "said filter" in line 2 should be changed to -- said wave filter --.

Regarding claim 9, "said filter" in line 2 should be changed to -- said wave filter --.

Regarding claim 14, claim 14 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Regarding claim 17, "said radiated ultra-wideband signal" in lines 5-6 should be changed to --- said radiated ultra-wideband pulses ---.

Regarding claim 29, "(McEwan detects ... an information bit.)" in the last two line should be deleted.

Claim 49 is objected to as being a substantial duplicate of claim 46.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 2, 3, 15, 16, 22-24, 56 and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by Moore (U.S. Patent No. 3,883,871).

Regarding claim 2, Moore teaches a communication system utilizing an ultra-wideband transmitter, said system comprising: a switched impulse generator (60 in Fig. 9) to generate a low-level ultra-wideband signal characterized by a series of UWB pulses (192 in Fig. 6; note that 192 is output from 60 in Fig. 9, see col. 11, line 22), said switched impulse generator including one of an on-off switched oscillator, an oscillator having a time-gated dc bias that alternately biases the oscillator on and off, and an impulse-gated mixer that mixes an oscillator output (96 in Fig. 5 or see C and H in Fig. 6); a filter (222 in Fig. 9) responsive to said switched impulse generator to filter said UWB pulses by substantially passing a range of frequencies from L-Band to X-Band (note that the bandpass filter 222 is a microwave band pass filter); an antenna responsive to said filter to radiate a representation of said UWB pulses (236 in Fig. 9); and a receiver that detects data from individual ones of radiated UWB pulses (240, 248, 252, 259, 260, 261, 262 in Fig. 9; col. 1, lines 9-11 and lines 42-45).

Regarding claim 3, Moore teaches a method for detecting an object utilizing ultra-wideband transmitting techniques, said method comprising: impulse-switching an oscillator ((96 in Fig. 5) to generate a low-level ultra-wideband signal (62 in Fig. 5 or Fig. 9; also see 192 in Fig. 6; note that 192 is output from 60 in Fig. 9, see col. 11, line 22); wave filtering said low-level ultra-wideband signal (222 in Fig. 9); after said filtering step, transmitting a signal representing said low-level ultra-wideband signal (236 in Fig. 9); and after said transmitting step, receiving from said object a reflected pulse of said ultra-wideband signal thereby to detect said object (col. 1, lines 9-11 and lines 42-45).

Regarding claim 15, Moore further teaches an amplifier (230 in Fig. 9) interposed between the antenna and the filter.

Regarding claim 16, Moore teaches that said filter comprises a bandpass filter (222 in Fig. 9).

Regarding claim 22, Moore further teaches that, after generating said low-level ultra-wideband signal, amplifying said low-level ultra-wideband signal (230 in Fig. 9).

Regarding claim 23, Moore teaches that said filtering comprises a bandpass filter (222 in Fig. 9).

Regarding claim 24, the bandwidth of the signal is inherently defined by the pass-band of the bandpass filter 222.

Regarding claim 56, Moore teaches a method of transmitting an ultra wideband pulse, said method comprising: generating a low-level UWB pulse that includes an energy burst having a few cycles of RF energy at a defined carrier frequency (60 in Fig. 9; also see 192 in Fig. 6; note that 192 is output from 60 in Fig. 9, see col. 11, line 22),

wave filtering the energy burst to reject out-of- band emissions (222 in Fig. 9), and radiating a filtered representation of said energy burst (236 in Fig. 9).

Regarding claim 57, Moore further teaches amplifying said energy burst prior to said radiating (230 in Fig. 9).

Allowable Subject Matter

4. Claims 1, 4, 6, 10-13 and 50-55 are allowed.

Claims 17-21 and 25-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 7-9 and 29-49 would be allowable if rewritten to overcome the claim objections described in paragraph 1 of the instant Office Action.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chieh M Fan whose telephone number is (571) 272-3042. The examiner can normally be reached on Monday-Friday 8:00AM-5:30PM, Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571) 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chieh M Fan
Primary Examiner
Art Unit 2634

January 27, 2005